Foreign Trade in Agri-food Products - Current Approaches

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Abstract

The paper analyzes the external trade with agro-food products from several perspectives, namely: value for all commodity groups; the share of different groups in total exports and imports respectively; of the evolution of its total values in the period 2012-2016. For the main groups of agri-food products: live animals, vegetable products, fats and oils, food, beverages and tobacco, national databases on Free On Board (FOB) and Cost Insurance And Freight (CIF) values will be used; the Grubel Lloyd index values will also be calculated in order to determine the equilibrium ratio between the two components of the trade balance, ie the value of the export and the import.

Key words: foreign trade, agri-food products, export, import
J.E.L. classification: Q17

1. Introduction

Agri-food products had, have and will be of special importance not only in ensuring food security in general, but also in the health of people, in particular, and the quantity, quality, structure and value of commodities that are the subject of trade influence the context of the evolution of agri-food markets, the economies of the world's countries and beyond.

Over time, people have asked questions about the existence of foreign trade, such as: "Why are economic links between different countries?", "What does a country have to do to trade?" being key elements for the development of specific theories of foreign trade.

This paper examines the evolution of foreign trade in agri-food products in Romania, the high interest of this subject being due to the role that trade plays in the country's economy.

Thus, the purpose of this paper is to analyze the trend and size of foreign trade in value for all commodity groups as well as the share of commodity groups in total exports and imports, but especially the analysis of foreign trade for agri-food products during 2012 -2016.

2. Theoretical background

Foreign trade is one of the oldest economic links between different countries. (Blanovschi, 2015). The presence of commerce has become necessary since people began to communicate with each other, at first people were content with few things and strived to produce everything they needed, over time, as civilization developed, their needs increased and could only be satisfied by exchange. The exchanges were made at the beginning, in the form of a troc, after which the intermediate goods, called the coin, were used. The troc was decomposed into two operations: sale and purchase; starting from that moment began the real trade. (Pațac, 2008).

Trade today refers to trade in all the activities relating to a product from the time it is intended to create it until it is destroyed by consumption or use, no matter what the form of consumptive, endemic or final consumption. (Bălășescu, 2010). At present, nobody can say that a particular country can develop under normal conditions without external economic relations, and that one of the most important problems of human society is to satisfy as much as possible the consumption

needs of people in a a context characterized by resource constraints and compliance with environmental protection requirements. (Antoci,2015).

Foreign trade is a distinct branch of a national economy that encompasses commercial operations or economic and technical-scientific cooperation in relations with foreigner on the sale and purchase of goods, works, services, financial operations, insurance, tourism and, in general, any acts or deeds of commerce. (Vişan, 1999). Foreign trade is the process whose realization involves the presence of buyers, sellers and different categories of intermediaries in different countries; foreign trade involves multiple economic, financial, including risks involved by the actors involved, including: credit risk and the time of performance of the contract; currency risk; the difference between laws and rules; sovereign risk and state risk. (Bădărău, 2017).

Foreign trade statistics study the volume and structure of export and import by groups of goods and countries, as well as their dynamics. Foreign trade in goods comprises all material goods that are added to, or deducted from, the material resources of the country (imports), by entering or leaving the country.

Foreign trade in goods or invisible trade, international trade are decisive factors in ensuring the balanced development of the economy, in creating GDP and national revenues (Castraveţ, 2008). Foreign trade determines the increase or decrease of the national income produced externally, depending on the ratio between the national value and the international value of the commodities covered by it (Coreţchi et al, 2010).

3. Methodology

In order to determine the evolution of foreign trade, data from the National Institute of Statistics (FOB) and (CIF) were used. Structured data by group of goods will be analyzed quantitatively and qualitatively, and Grubel and Lloyd will be calculated to determine the balance between the value of exports and imports.

GLi = 1 - $\frac{|(X_{ij}-M_{ij})|}{(X_i+M_j)}$, where:

X_{ij}- the value of the product's exports in country j

M_{ij}- the value of imports of product i in country j

When the value of exports is equal to that of the same industry imports, the Grubel-Lloyd index is 1 and when there are only exports or imports, the value is 0. (Ban, 2017)

4. Findings

In order to determine the structure of exports and imports, the evolution of foreign trade during the period 2012-2016 will be analyzed for all chapters: live animals, vegetable products, fats and oils, food, beverages and tobacco, mineral products, chemicals, plastics, skins and furs, wooden products, paper, textiles, clothing, stoneware, ceramics, glass, common metals, electrical equipment, means of transport, various instruments, goods and other goods.

Figure 1 shows the dynamics of export, import in terms of value and trade balance.

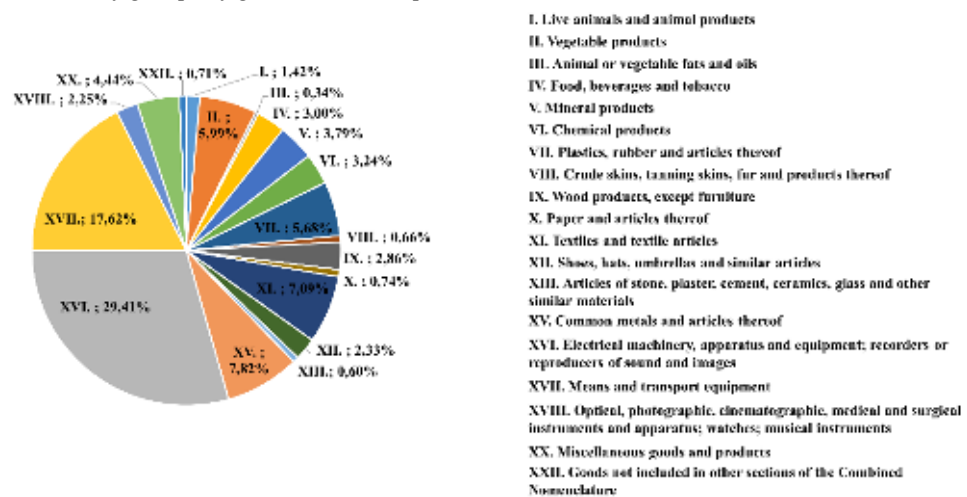*Figure no. 1. Evolution of Romanian foreign trade*
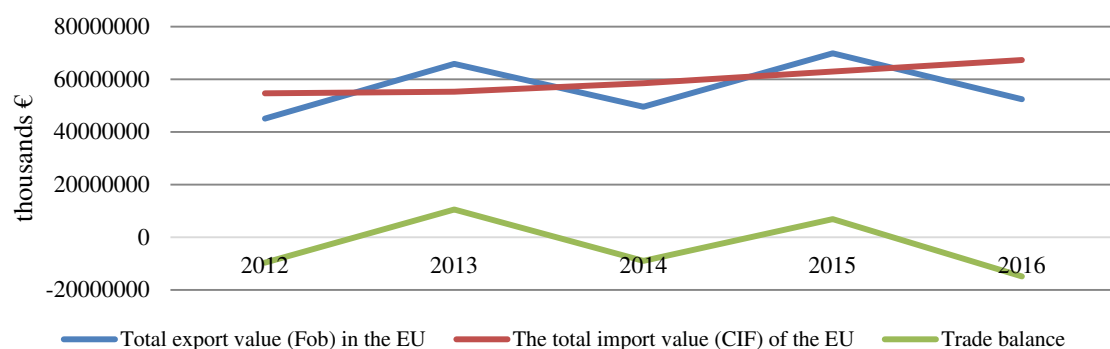
Source: www.insse.ro

In 2013, the export value increased by 46.17% compared to 2012, in 2014 it decreased by about 24.76% compared to 2013, in 2015 the export value increased by 41% in 2014 and by 2016 it fell by approximately 24.92%. In 2016 the value of the export is higher than in 2012 by about 16.41%.

Between 2012 and 2015, the value of imports steadily increased, in 2013 it increased by about 1.12% in 2012, in 2014 it increased compared to 2013 by about 5.79%, in 2015 increased by 7.60% compared to 2014, and in 2016 the value of imports decreased by about 6.97% compared to 2015. In 2016 the import value increased by 23.14% compared to 2012 import value.
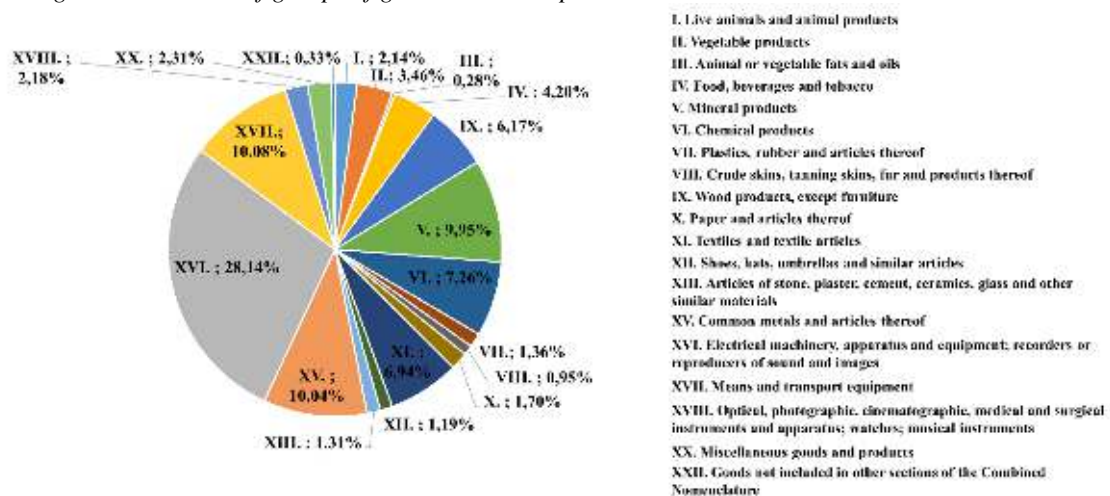
As can be seen in Figure 1, the import trend is constant, and the oscillating evolution is that of exports, so the trade balance dynamics is given by the latter. Thus, in years when the value of exports was high, ie 2013 and 2015, there was also a surplus of € 10.5 billion and € 6.9 billion respectively. In 2012, FOB exports were € 45.1 billion, while CIF imports were € 54.7 billion, trade deficit (FOB / CIF) was € 9.6 billion, in 2014, FOB exports were € 49.5 billion, while CIF imports were € 58.5 billion, trade deficit (FOB / CIF) was € 8.9 billion, and in 2016 the value of imports exceeded the value of exports with 14.8 billion, the trade deficit (FOB / CIF) being the largest of the analyzed years because the value of the import was the highest in the analyzed period, namely 67.3 billion €.

Figure no. 2. Share of groups of goods in total exports

I. Live animals and animal products
II. Vegetable products
III. Animal or vegetable fats and oils
IV. Food, beverages and tobacco
V. Mineral products
VI. Chemical products
VII. Plastics, rubber and articles thereof
VIII. Crude skins, tanning skins, fur and products thereof
IX. Wood products, except furniture
X. Paper and articles thereof
XI. Textiles and textile articles
XII. Shoes, hats, umbrellas and similar articles
XIII. Articles of stone, plaster, cement, ceramics, glass and other similar materials
XV. Common metals and articles thereof
XVI. Electrical machinery, apparatus and equipment; recorders or reproducers of sound and images
XVII. Means and transport equipment
XVIII. Optical, photographic, cinematographic, medical and surgical instruments and apparatus; watches; musical instruments
XX. Miscellaneous goods and products
XXII. Goods not included in other sections of the Combined Nomenclature

Source: own processing based on www.insse.ro data

Figure no. 3. Share of groups of goods in total imports

I. Live animals and animal products
II. Vegetable products
III. Animal or vegetable fats and oils
IV. Food, beverages and tobacco
V. Mineral products
VI. Chemical products
VII. Plastics, rubber and articles thereof
VIII. Crude skins, tanning skins, fur and products thereof
IX. Wood products, except furniture
X. Paper and articles thereof
XI. Textiles and textile articles
XII. Shoes, hats, umbrellas and similar articles
XIII. Articles of stone, plaster, cement, ceramics, glass and other similar materials
XV. Common metals and articles thereof
XVI. Electrical machinery, apparatus and equipment; recorders or reproducers of sound and images
XVII. Means and transport equipment
XVIII. Optical, photographic, cinematographic, medical and surgical instruments and apparatus; watches; musical instruments
XX. Miscellaneous goods and products
XXII. Goods not included in other sections of the Combined Nomenclature

Source: own processing based on www.insse.ro data

From the point of view of the share of the main commodity groups in the Combined Nomenclature in the total import operations for active processing in 2016, we note that the essential share was: electrical equipment with a weight of 28.14%, means of transport with a weight of 10.08%, common metals with a weight of 10.04%, chemicals with a weight of 9.95%, plastics with a weight of 7.26% and textiles with a weight of 6.94%. These five groups represent approximately 72% of the total imported goods.

In order to determine the evolution of the external trade of agro-food products, the export values and import values were determined by the sum of the following four groups of products: live animals, vegetable products, fats and oils, foodstuffs, beverages and tobacco.

Figure no. 4. The evolution of foreign trade in agri-food products
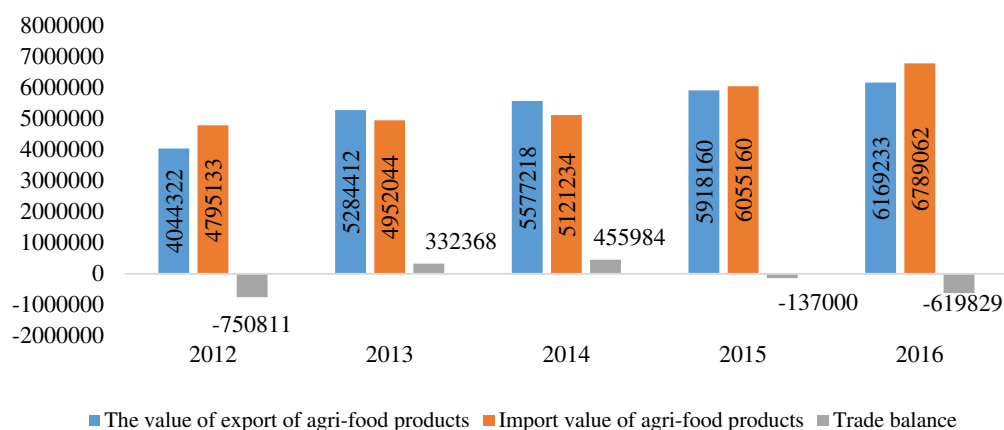
Source: own processing based on www.insse.ro data

The value of exports of agri-food products grew by 31% in 2013 compared to 2012, in 2014 it increased by approximately 5.54% compared to 2013, in 2015 it increased by 6.11% compared to 2014, and in the year 2016, the value of exports of agro-food products increased by about 4.24% compared to 2015. In 2016, the value of exports with agro-food products increased by 52.54% compared to 2012.

The value of imports of agri-food products in 2013 increased by 3.27% compared to 2012, in 2014 it increased by 3.41% compared to 2013, in 2015 it increased by about 18.23% compared to 2014, and in the year 2016 rose by about 12.12% over 2015. In 2016, the value of imports with agro-food products increased by 41.58% compared to 2012.

Although both the evolution of exports and the evolution of imports have steadily increased from one year to the next, during the five years, in three years there was a deficit, especially in 2016, when the deficit was 4.5 times higher than in the previous year, this determines that the growth rate of imports was higher than that of exports. Also in Figure 4, we can observe a trade surplus in 2013 when the highest growth of exports was registered in comparison with 2012 and 2014 respectively, when the value of exports with agri-food products kept its trend of growth.

Table no. 1 Determination of Grübel and Lloyd (GL)

Products Group	2012	2013	2014	2015	2016
I. Live animals	0.828	0.802	0.755	0.768	0.722
II. Vegetable products	0.836	0.656	0.660	0.797	0.808
III. Fats and oils	0.868	0.923	0.869	0.903	0.988
IV. Food, beverages and tobacco	0.711	0.753	0.823	0.832	0.757

Source: Own calculations

The Grübel and Lloyd index for the main groups of agri-food products was determined in Table 1. As can be seen, for the first category of live animals over the period under review it was above 0,7 which leads to a partial balance in the trade balance. For the category of plant products, the value of the index was around 0.8 for three of the five years, and in 2013 and 2014 its value was lower and 0.65, respectively. Fats and oils have indexed as close to 1 as possible, leading to a stable balance of trade balance. Other food, beverages and tobacco have a partial trade balance, with an index of between 0.71 and 0.83 in the analyzed period.

5. Conclusions

The paper aimed to analyze the import and export structure in terms of value, in order to determine the way Romania performs its economic activities as well as the determination of Romania's trade balance. The trend of imports is constant and the evolution of exports is oscillating, so the dynamics of the trade balance is given by the trend of exports.

The main three groups of products, namely electrical equipment, means of transport and common metals, recorded the largest share, both in the structure of exports and in the structure of imports.

Concerning the import of agri-food products in 2016, their growth rate was higher than that of exports with agro-food products, the trade balance of this product category being deficient.

According to the Grübel and Lloyd index, the trade balance of fats and oils is balanced due to the fact that they have recorded the Grübel and Lloyd index as close as 1 and for the other categories of agri-food products, the balance between import and export is partially secured.

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